Income Approach

Problem # 1

Determination of Net Operating Income

You are trying to determine the value of a small retail center containing 4,500 square feet. There are three leasable spaces in the building, and at present two of the spaces are leased. You have determined the following information:

1.) Market rent for this type of space is $22.50 per square foot.

2.) The owner has $3,000 per year in miscellaneous income.

3.) The vacancy rate is 5% and the collection loss rate is 1%.

4.) Operating Expenses from the reconstructed operating statement are $30,500.

5.) The Reserve for Replacements is $5,000.

Determine the Net Operating Income (NOI) for the subject property.

Potential Gross Income (PGI)	
Vacancy and Collection Loss	
Miscellaneous Income	
Effective Gross Income (EGI)	
Operating Expenses	
Reserves for Replacements	
Net Operating Income (NOI)	

Income Approach

Problem # 2 (A)

Gross Rent and Gross Income Multipliers

Gross Rent Multiplier Problem

The subject property is a single family dwelling which is rented for $475 per month The market rent is also $475 per month. Develop a GRM from the following data and use it to calculate a possible indication of value.

Sales

	1	2	3	4	5	6
Sale Price	$60,000	$72,000	$65,000	$62,000	$68,000	$70,000
Monthly Rent (EGI)	$425	$520	$460	$450	$490	$500
GRM						

Problem # 2 (B)

Gross Income Multiplier Problem

The subject property produces Gross Annual Effective Gross Income of $72,000. Analysis of rents and sales of comparable properties rendered the following. Based upon this information calculate a Gross Income Multiplier (GIM) and then calculate indication of value for subject property

Sale	Sale Price	EGI	GIM	Range
1	$675,000	$75,000		
2	$600,000	$68,000		
3	$720,000	$85,700		
4	$750,000	$87,500		
5	$650,000	$73,000		

Estimated value of subject property:

Value using Median	
Value using Low range	
Value using High range	

Problem # 3

Belle Rive Office Building

Determine PGI, EGI, and NOI

You are appraising an office building in the Belle Rive complex. The building is three stories high and contains 20,000 square feet on each floor. The net leasable area on each floor is 17,500 square feet. There are three offices on each floor, but the square footage per office varies with the client. The leases have been entered into at various times over the past four years. The current rent roll is as follows:

First Floor	Area	Total Rent Paid
Thomas and Associates	3,750	$ 69,375
Katz, Katz, and Doggz	8,250	$ 123,750
Kelley Engineering	5,500	$ 88,000
Second Floor		
Second Job Agency	4,000	$ 72,000
Paperman Publishing	9,200	$ 142,600
Vacant	4,300	$ -
Third Floor		
Silverman and Goldman	8,000	$ 128,000
Leland Entertainment	3,000	$ 51,000
Media Heaven Ad Agency	6,500	$ 110,500

In researching the market, you have found that recently negotiated office rent in the same type location is running $20.10 per square foot.

What is the Potential Gross Income for your subject property?

In researching the rents, we also found that our vacancy rate was identical to the market vacancy rate. What is the vacancy rate for the subject property?

The market collection loss for office space in this area is 1.2%. Using this rate develop a vacancy and collection loss rate for the subject building.

Using the above information, what is the Effective Gross Income of the subject?

Income Approach

Problem # 3

Belle Rive Office Building

Determine PGI, EGI, and NOI

The property management company that manages the Belle Rive complex has furnished you with the following operating statement. You need to reconstruct this statement removing the improper expenses and determine the Net Operating Income.

Belle Rive Office Building

Income Approach

Problem # 3

Operating Statement as filed

Potential Gross Income	$	785,225.00		
Less: Vacancy and Collection Loss 8.2%)	$	(64,388.00)		
Add: Miscellaneous Income		0		
Effective Gross Income			$	720,837.00
Less operating expenses:				
Management Fees (10% of EGI)	$	(72,084.00)		
Property Taxes	$	(28,457.00)		
Lawn Care	$	(2,300.00)		
Supplies/Maintenance	$	(7,248.00)		
Maintenance Salaries/Benefits	$	(28,340.00)		
Common Lighting	$	(1,345.00)		
Water and Sewer	$	(6,573.00)		
Electricity	$	(11,965.00)		
Gas	$	(15,996.00)		
Liability Insurance	$	(7,100.00)		
Debt Service	$	(173,900.00)		
Snow Removal	$	(1,100.00)		
Income taxes	$	(61,230.00)		
Donation to City Festival	$	(500.00)		
Christmas party for tenants	$	(1,345.00)		
Casualty Insurance (3 year policy)	$	(845.00)		
Membership in trade association	$	(1,500.00)		
Flower fund	$	(734.00)		
Total operating expenses			$	(422,562.00)
Less Reserve for Replacements			$	(22,500.00)
Net Operating Income			$	275,775.00

Practice Problem # 1

Developing NOI and Cap Rates

Potential Gross Income		$150,000
Vacancy and Collection Loss		10%
Operating Expense		$25,000
Christmas Gift		$2,500
Property Value		$800,000
Loan to value ratio		0.4

The above is given to you, develop the NOI and the Overall Capitalization Rate.

Net operating Income _____

Overall Cap Rate _____

Income Approach

Practice Problem # 2
Developing PGI, EGI, and NOI and Value of Subject

40000 square feet
Of this, 8000 square feet is common area
Market Rent $20/square foot of net rentable area
Vacancy and Collection loss 6%
Operating Exp and Reserve for Replacement 18%
CAPITALIZATION RATE IS 10%

THE ABOVE IS GIVEN PER PROBLEM---DEVELOP PGI, EGI, & NOI
AND THE VALUE OF THIS SUBJECT PROPERTY

Potential Gross Income _____
Vacancy and Collection Loss _____
Misc Income _____
Effective Gross Income _____
Operating Expenses & Reserves for Replacements _____
Net Operating Income _____

WHAT IS THE VALUE OF THIS PROPERTY _____

Income Approach

Practice Problem # 3

Developing an Expense Ratio

Using the below information, calculate an expense ratio for each of the four properties.

SC	EGI	EXPENSES	RESERVES		
Rieverton	$469,775	$135,330	$15,000		
Eagle Ridge	$392,440	$117,500	$12,000		
Chatham	$518,760	$148,000	$18,000		
Hyde Park	$318,780	$88,020	$10,800		

What is the Median expense ratio? | |

Income Approach

Practice Problem # 4 (A)

Gross Rent Multiplier Problem VIF Formula

	SALES				
	1	2	3	4	5
Sale Price	$45,000	$56,000	$48,000	$53,500	$58,000
Monthly Rent	$425	$520	$450	$490	$525
GRM					

MONTHLY EGI OF SUBJECT PROPERTY $475

MEDIAN

USING THE MEDIAN GRM PROVIDE AN INDICATION OF VALUE TO THE NEAREST $100

Income Approach

Practice Problem # 4 (B)

Gross Income Multiplier Problem

Sale	Sale Price	Effective Gross Income	Gross Income Multiplier
A	$650,000	$75,000	
B	$590,000	$68,000	
C	$695,000	$85,700	
D	$750,000	$87,500	
E	$620,000	$73,000	

Ranges from _____ to _____

GIVEN YEARLY EGI	RANGE	VALUES
$72,000		
$72,000		

Median		

PROVIDE THE HIGH AND LOW RANGE VALUES BASED ON THE GIM